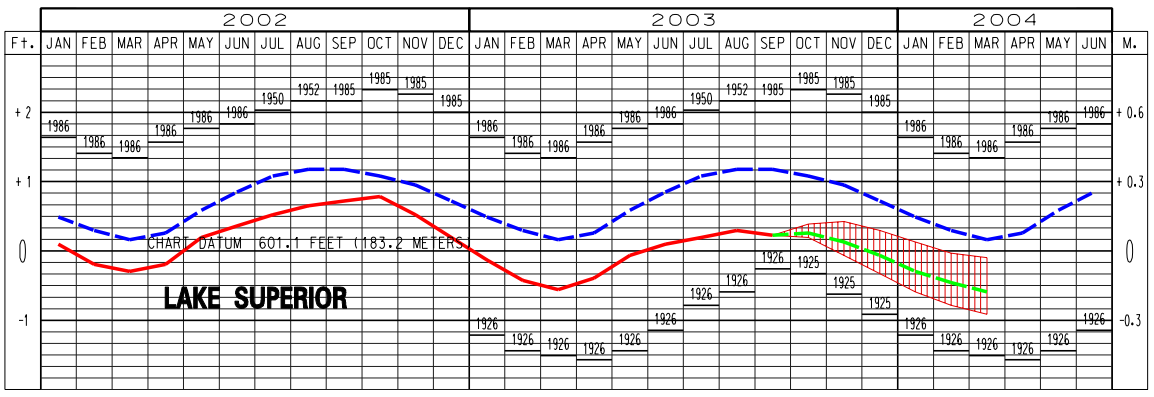
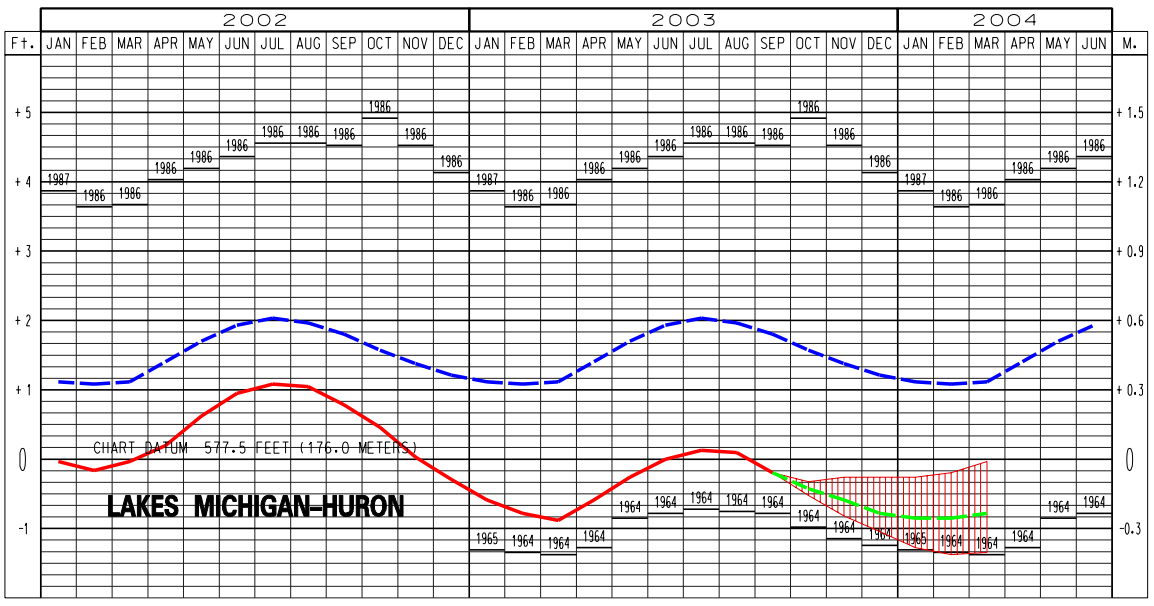
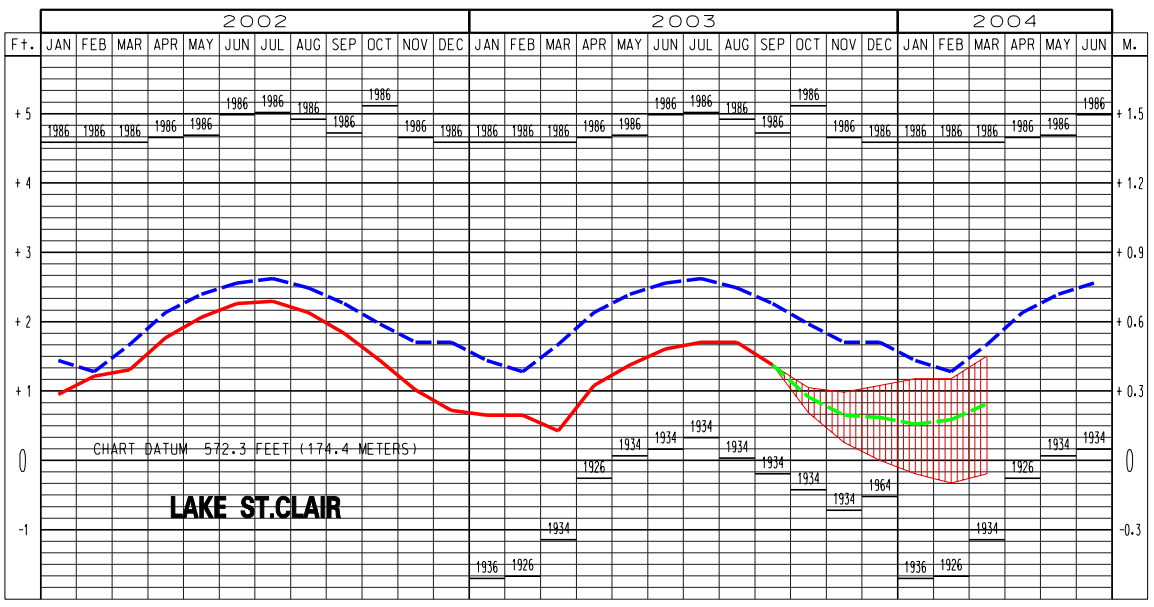
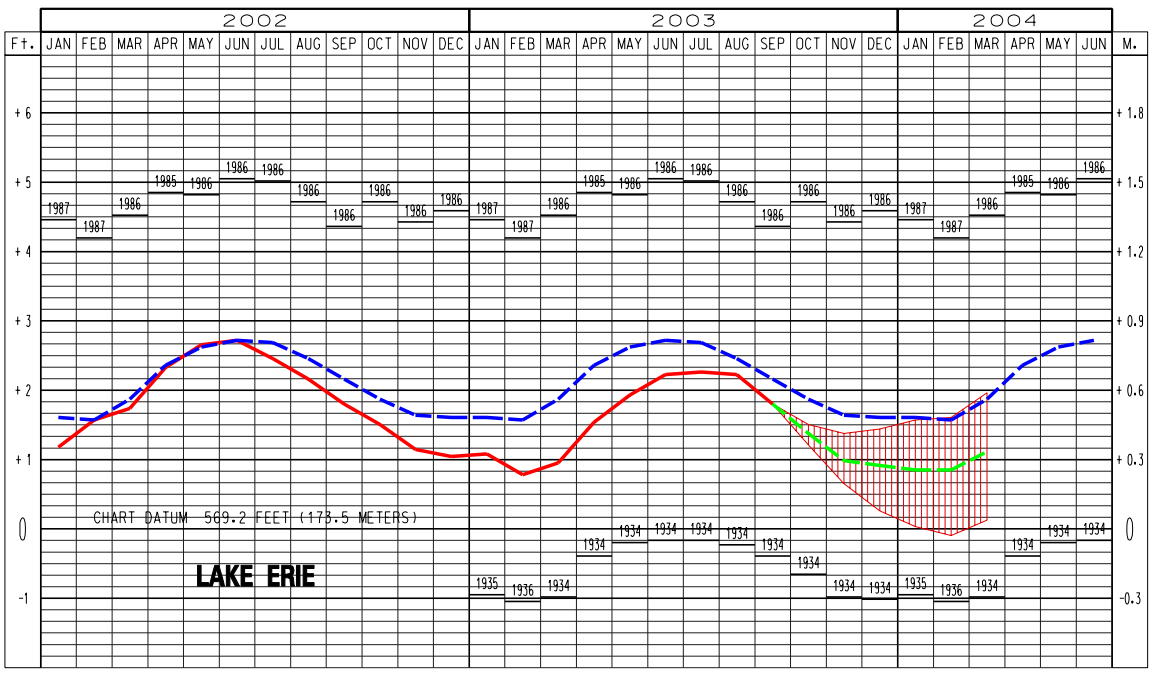
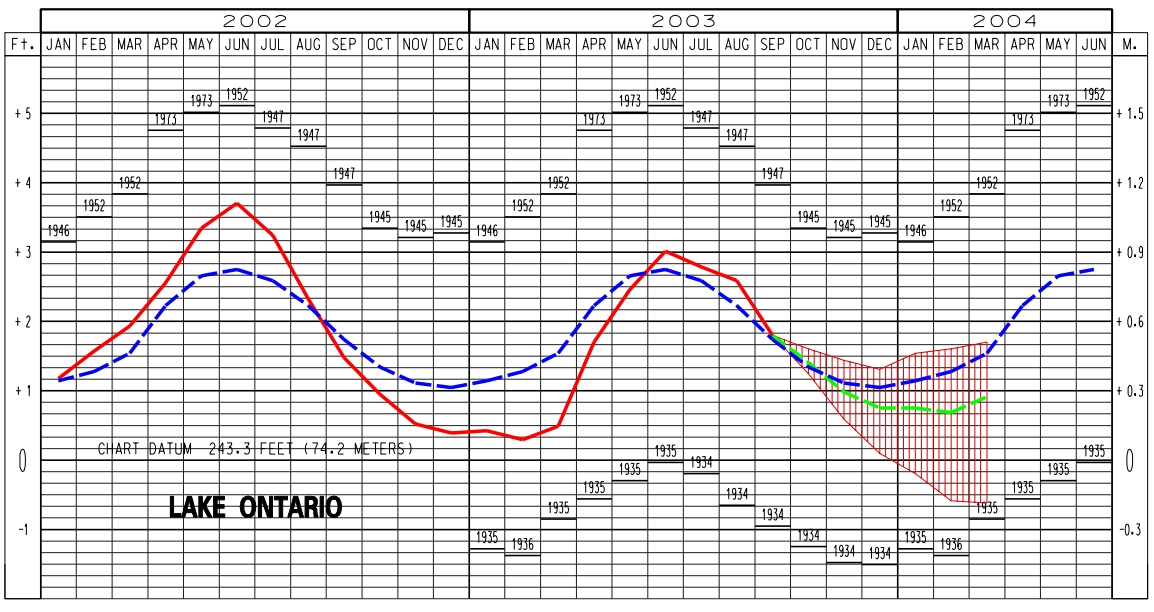










ELEVATIONS REFERENCED TO THE CHART DATUM OF EACH RESPECTIVE LAKE

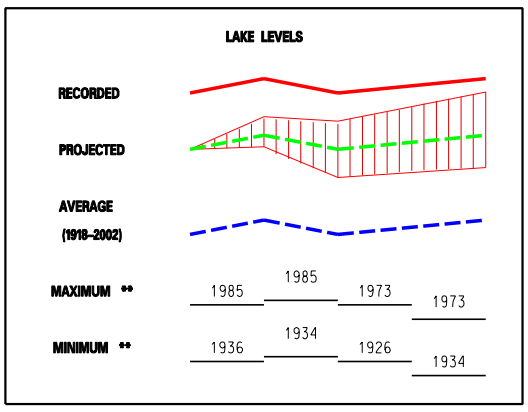
US Army Corps of Engineers
Detroit District

MONTHLY BULLETIN OF LAKE LEVELS FOR THE GREAT LAKES

OCTOBER 2003

Water levels for the previous year and the current year to date are shown as a solid line on the hydrographs. A projection for the next six months is given as a dashed line. This projection is based on the present condition of the lake basin and anticipated future weather. The shaded area shows a range of possible levels over the next six months dependent upon weather variations. Current and projected levels (solid and dashed lines) can be compared with the 1918–2001 average levels (dotted line) and extreme levels (shown as bars with their year of occurrence). The legend below further identifies the information on the hydrographs.

LEGEND



The levels on the hydrographs are shown in both feet and meters above (+) or below (–) Chart Datum. Chart Datum, also known as Low Water Datum, is a reference plane on each lake to which water depth and Federal navigation improvement depths on navigation charts are referred.

All elevations and plots shown in this bulletin are referenced to International Great Lakes Datum 1985 (IGLD 1985). IGLD 1985 has its zero base at Rimouski, Quebec near the mouth of the St. Lawrence River (approximate sea level).

SEPTEMBER MEAN LAKE LEVELS

(IGLD 1985)

		Superior	Mich-Huron	St. Clair	Erie	Ontario
* 2003	Ft.	601.28	577.23	573.56	571.03	245.24
	M.	183.27	175.94	174.82	174.05	74.75
2002	Ft.	601.77	578.22	574.02	571.03	244.91
	M.	183.42	176.24	174.96	174.05	74.65
	Ft.	603.22	581.96	576.90	573.59	247.41
** MAX.	M.	183.86	177.38	175.84	174.83	75.41
	Yr.	1985	1986	1986	1986	1947
	Ft.	600.79	576.64	571.98	568.83	242.49
** MIN.	M.	183.12	175.76	174.34	173.38	73.91
	Yr.	1926	1964	1934	1934	1934
AVG.	Ft.	602.23	579.23	574.44	571.39	245.18
(1918-2002)	M.	183.56	176.55	175.09	174.16	74.73

* provisional
** Maxima and Minima for period 1918-2002

Recorded water levels in this bulletin are derived from a representative network of water level gages on each lake (see cover map). Providers of these data are the U.S. Department of Commerce, NOAA, the National Ocean Service, and the Marine Environmental Data Service, Department of Fisheries and Oceans, Canada. The Detroit District, Corps of Engineers and Environment Canada derive historic and projected lake levels under the auspices of the Coordinating Committee on Great Lakes Basic Hydraulic and Hydrologic Data.

This bulletin is produced monthly as a public service. Tables of possible storm-induced rises at key locations on the Great Lakes are available on request. The Corps also publishes the "Great Lakes, Connecting Channels and St. Lawrence River Water Levels and Depths," twice monthly, which provides a forecast of depths in the connecting rivers between the Great Lakes and the International Section of the St. Lawrence River. These publications can be obtained free of charge by writing to the address shown on the front cover, or by calling (313) 226-2201. Notices of change of address should include the name of the publication(s). The Internet address **http://www.lre.usace.army.mil** contains this information on the Internet.

Great Lakes Basin Hydrology
September 2003

Precipitation for September was above average on all of the Great Lakes basins. For the last 12 months, precipitation was above average on the Lake Superior and Lake Erie basins and near average on the Lake Michigan-Huron and Lake Ontario basins. During September the net supply of water was above average to Lake Superior and Lake Ontario, near average on Lake Erie and below average on Lake Michigan-Huron. The tables below list September precipitation and water supply information for the entire Great Lakes basins.

Comparison of September monthly mean water levels to long-term (1918-2002) average show Lakes Superior, Michigan-Huron, St. Clair, and Erie were 11, 24, 11 and 4 inches, respectively, below average. Lake Ontario was an inch above average in September. Boaters should be aware of hazards to navigation due to current conditions.

PRECIPITATION (INCHES)

BASIN	September				12-Month Comparison			
	2003	Average (1900-1996)	Diff.	% of Average	Last 12 months	Average (1900-1996)	Diff.	% of Average
Superior	4.83	3.53	1.30	137	31.46	30.41	1.05	103
Michigan-Huron	3.59	3.47	0.12	103	28.80	32.10	-3.30	90
Erie	5.34	3.16	2.18	169	35.82	34.99	0.83	102
Ontario	3.66	3.21	0.45	114	34.20	35.27	-1.07	97
Great Lakes	4.17	3.41	0.76	122	30.39	32.37	-1.98	94

LAKE	September WATER SUPPLIES[2] (cfs)		September OUTFLOW[3] (cfs)	
	2003[1]	Average (1900-1989)	2003[1]	Average[5] (1900-1999)
Superior	88,000	73,000	71,000	83,000
Michigan-Huron	-53,000	31,000	157,000[4]	194,000
Erie	-20,000	-18,000	189,000[4]	203,000
Ontario	6,000	5,000	249,000	247,000

Notes: Values (excluding averages) are based on preliminary computations; cfs denotes cubic feet per second.
[1] Estimated
[2] Negative water supply denotes evaporation from lake exceeded runoff from local basin.
[3] Does not include diversions
[4] Reflects effects of ice/weed retardation in connecting channel
[5] Niagara and St. Lawrence River Average Flows period of record (1900-1989).